February 7, 2002

Mr. Richard Fiorelli
Elliot-Williams
3500 East 20th Street
Indianapolis, IN 46218
Dear Mr. Fiorelli:

Re: Exempt Construction and Operation Status,
097-14636-00398

The application from Elliot-Williams received on April 2, 2001 has been reviewed. The application stated that Elliot-Williams was relocating its permitted operations from 2900 North Richardt Street in Indianapolis, Indiana to 3500 East 20th Street in Indianapolis, Indiana. Elliot-Williams was operating as a Part 70 permitted source under T097-7116-00294 issued September 16, 1998. Elliot-Williams refiled the original Part 70 permit application on April 2, 2001 for its new relocated operations. Additional information regarding this relocation was received from the source on July 5, July 10, July 19, August 1 and October 15, 2001.

Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following operations relating to the construction and operation of a refrigeration systems manufacturing operation under a Standard Industrial Classification (SIC) Code of 3585 Commercial and Industrial Refrigeration Equipment located at 3500 East 20th Street in Indianapolis, Indiana 46218 is classified as exempt from air pollution permit requirements:

(a) One (1) Graco Glue System identified as EU 1. Glue is applied through the use of air atomization spray guns with a maximum process capacity of 0.0038 gallons of glue per unit and 50 units per hour. Installed in 2001.

(b) Miscellaneous solvent cleaning usage identified as EU 2 with a maximum capacity of spot cleaning of 1.8 pounds of solvent per hour. Installed in 2001.

(c) Natural gas fired space heaters each less than 1 million Btu per hour maximum heat input. Installed in 2001.

(d) Structural steel fabrication activities using 80 tons or less of welding consumables. Installed in 2001.

(e) Hand held grinding equipment. Installed in 2001.

(f) Closed-cell rigid polyurethane foam board manufacturing utilizing HCFC-141B. Installed in 2001.

The following conditions shall be applicable:

(1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

(a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuos opacity monitor in a six (6) hour period.

(2) Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone) Subpart E and 326 IAC 22 (Stratospheric Ozone Protection), the Permittee shall comply with the standards for labeling of containers of controlled substances or products containing controlled substances.

This exemption is the first air approval issued to this source location.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) and the City of Indianapolis Office of Environmental Services if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original Signed by Barbara A. Lawrence
Barbara A. Lawrence
Acting Administrator
Office of Environmental Services

MBC

cc: file (2 copies)
Mindy Hahn, IDEM, OAQ

Attachment: Technical Support Document

Indiana Department of Environmental Management
Office of Air Quality
and
City of Indianapolis
Office of Environmental Services

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name: **Elliot-Williams**
Source Location: **3500 East 20th Street**
County: **Marion**
SIC Code: **3585**
Operation Permit No.: **097-14636-00398**
Permit Reviewer: **M. Caraher**

The City of Indianapolis Office of Environmental Services (OES) and the Office of Air Quality (OAQ) have reviewed an application from Elliot-Williams relating to the construction and operation of a refrigeration systems manufacturing operation under a Standard Industrial Classification (SIC) Code of 3585 Commercial and Industrial Refrigeration Equipment.

This review involves the relocation of a previously existing permitted source operating at 2900 North Richardt in Indianapolis to 3500 East 20th Street in Indianapolis. Elliot-Williams was previously permitted as a Title V source operating at 2900 North Richardt under T097-7116-00294 issued September 16, 1998. Elliot-Williams now requests that its new source site with new lower potential to emit Hazardous Air Pollutants (HAPs) be reviewed and permitted accordingly.

Through the application process for this relocation, Elliot-Williams submitted justification that the new site should not be a major source of HAPs nor should their potential to emit HAPs need to be enforceably restricted as their new potential to emit, after relocation and process changes, is less than any HAPs major source emission thresholds. The reduction in Methylene Chloride potential to emit arises from the procurement of pre-primed metal, the reduction in square footage needing glue application and the consolidation of glue spraying equipment.

This relocation will be reviewed/permitted as a new source.

Emission Units and Pollution Control Equipment

The source consists of the following facilities/units:

(a) One (1) Graco Glue System identified as EU 1. Glue is applied through the use of air atomization spray guns with a maximum process capacity of 0.0038 gallons of glue per unit and 50 units per hour. Installed in 2001.

(b) Miscellaneous solvent cleaning usage identified as EU 2 with a maximum capacity of spot cleaning of 1.8 pounds of solvent per hour. Installed in 2001.

(c) Natural gas fired space heaters each less than 1 million Btu per hour maximum heat input. Installed in 2001.

(d) Structural steel fabrication activities using 80 tons or less of welding consumables. Installed in 2001.

(e) Hand held grinding equipment. Installed in 2001.

(f) Closed-cell rigid polyurethane foam board manufacturing utilizing HCFC-141B. Installed in 2001.

Existing Approvals

There are no existing approvals issued to this new source.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
NA	NA	NA	NA	NA	NA

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Administrator that the Exemption be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on April 2, 2001, with additional information received on July 5, 2001 (NOD1 Response), July 10, 2001 (additional information about potential to emit, New Source Review issues and applicability of 326 IAC 2-4.1), July 19, 2001 (revised PI-19 Form submitted), August 1, 2001(in regards to potential to emit HAPs and operations claimed previously as "Insignificant Activities") and on October 15, 2001 (in regards to the use of Class II Ozone Depleting Substances identified in 40 CFR 82 Protection of Stratospheric Ozone).

Emission Calculations

See Appendix A pages 1 through 6 of 6 of this document for detailed emissions calculations.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	4.7
PM-10	4.7
SO_2	0.0
VOC	8.0
CO	0.7
NO_x	0.9

HAP's	Potential To Emit (tons/year)
Methylene Chloride	7.0
MDI	3.6E-004
Demethylformamide	0.9
Toluene (BTEX)	0.3
Dioctyl Phtalate	0.4
TOTAL	8.6

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any regulated pollutant is less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of any combination HAPs is less than or equal to twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(c) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

(d) Provisions of 326 IAC 2-1.1-3 specifically state, under 326 IAC 2-1.1-3(c)(4), that new sources with the potential to emit hazardous air pollutants less than ten (10) tons of any individual HAP and less than twenty five (25) tons of any combination of HAP and not otherwise required to apply and obtain a registration or permit are expressly stated as being exempt from any registration or permitting requirements under 326 IAC 2 (Permit Review Rules). The source wide potential to emit HAPs appears to be less than 10 tons of any individual HAP and less than 25 tons per year of any combination of HAP. As a result, it appears that this source would be exempt from any Registration or Permitting requirements under 326 IAC 2.

(e) 326 IAC 2-1.1-3(d) specifically exempts Registering or permitting sources who have potential to emit PM and/or PM10 of less than 5 tons per year, less than 10 tons per year of NO_x, VOC and SO_2 and less than 25 tons per year of CO. As a result, it appears that this source would be exempt from any Registration or Permitting requirements under 326 IAC 2.

Actual Emissions

No previous emission data has been received from the source as proposed to be operated at 3500 East 20th Street in Indianapolis.

County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM-10	unclassifiable
SO_2	maintenance attainment
NO_2	attainment
Ozone	maintenance attainment
CO	attainment
Lead	unclassifiable

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Marion County has been classified as attainment or unclassifiable for PM10, SO_2, NO_x, Ozone, CO and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	4.7
PM10	4.7
SO_2	0.0
VOC	8.0
CO	0.7
NO_x	0.9
Single HAP	7.0
Combination HAPs	8.6

(a) This new source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:
(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source at this location.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source.

(c) 40 CFR 82 (Protection of Stratospheric Ozone) Subpart C and Subpart E apply to this source because the source uses HCFC 141B in a polyurethane foam board manufacturing process. See 326 IAC 22 (Stratospheric Ozone State Rule Applicability) - Entire Source for a detailed discussion of applicability and requirements.

State Rule Applicability - Entire Source

326 IAC 1-6-3 (Preventive Maintenance Plan)

Only sources required to obtain a permit are required to prepare and maintain a Preventive Maintenance Plan (PMP). The potential to emit regulated air pollutants appears to be below any minimum permitting threshold or permitting provisions found in 326 IAC 2-1.1-2 (Permit Review Rules: General Provisions; Applicability) and or 326 IAC 2-5.1 (Construction of New Sources).

326 IAC 2-1.1 (Permit Review Rules: General Provisions)

(a) Provisions of 326 IAC 2-1.1-3 specifically state, under 326 IAC 2-1.1-3(c)(4), that new sources with the potential to emit hazardous air pollutants less than ten (10) tons of any individual HAP and less than twenty five (25) tons of any combination of HAP and not otherwise required to apply and obtain a registration or permit are expressly stated as being exempt from any registration or permitting requirements under 326 IAC 2 (Permit Review Rules). The source wide potential to emit HAPs appears to be less than 10 tons of any individual HAP and less than 25 tons per year of any combination of HAP. As a result, it appears that this source would be exempt from any Registration or Permitting requirements under 326 IAC 2.

(b) 326 IAC 2-1.1-3(d) specifically exempts Registering or permitting sources who have potential to emit PM and/or PM10 of less than 5 tons per year, less than 10 tons per year of NO_x, VOC and SO_2 and less than 25 tons per year of CO. As a result, it appears that this source would be exempt from any Registration or Permitting requirements under 326 IAC 2.

326 IAC 2-4.1(HAPs Major Sources; New Source Toxics Control)

The source appears to have potential to emit less than ten (10) tons per year of Methylene Chloride and less than twenty five (25) tons per year of any combination of HAPs. The reduction in HAP emissions from this relocation appears to arise from the procurement of pre-primed metal, the reduction in square footage needing glue application and the consolidation of glue spraying equipment. The Title V application for the source as configured at 2900 Richardt Avenue in Indianapolis prior to the location was 0.0038 gallons of methylene chloride consumed per unit and 260 units (square feet) processed per hour. Following relocation, the new source potential to emit is estimated at 0.0038 gallons per unit and 50 units (square feet) processed per hour. In addition, past reporting under 326 IAC 2-6 (Emission Reporting) did not state that actual emissions ever exceeded ten (10) tons per year of methylene chloride emissions.

326 IAC 2-5.1 (Construction of New Sources)

The source has potential to emit less than any five (5) tons per year of PM and/or PM10, less than ten (10) tons of NO_x, SO_2 and CO and less than ten (10) tons per year of VOC (no 326 IAC 8 provision appears to be applicable to this source). In addition, provisions of 326 IAC 2-1.1-3 specifically state, under 326 IAC 2-1.1-3(c)(4), that new sources with the potential to emit hazardous air pollutants less than ten (10) tons of any individual HAP and less than twenty five (25) tons of any combination of HAP and not otherwise required to apply and obtain a registration or permit are expressly stated as being exempt from any registration or permitting requirements under 326 IAC

2 (Permit Review Rules). The source wide potential to emit HAPs appears to be less than 10 tons of any individual HAP and less than 25 tons per year of any combination of HAP. As a result, it appears that this source would be exempt from any Registration or Permitting requirements under 326 IAC 2.

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit less than ten (10) tons per year of NO_x and/or VOC in Marion County and less that one hundred (100) tons per year of Particulate Matter (PM). In addition, the potential to emit HAPs is less than any major source threshold and, as such, is not required to obtain a permit under 326 IAC 2-7 (Part 70 Permit Program). As a result, 326 IAC 2-6 (Emission Reporting) does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6 (Particulate Rules)

(a) This source does not have the potential to emit Particulate Matter (PM) in excess of one hundred (100) tons per year or have actual PM emissions of greater than ten (10) tons per year. Therefore, 326 IAC 6-1 does not apply to this source.

(b) The source consists of hand held grinding equipment, the spray application of methylene chloride, natural gas space heating and polyurethane foam blowing equipment. These operations either do not have particulate matter emissions and/or the process weight rule, pursuant to 326 IAC 1-2-59 (Process Weight; Weight Rate Defined), does not apply. Therefore, 326 IAC 6-3 does not apply.

326 IAC 7 (Sulfur Dioxide Rules)

This source does not have any emission unit with the potential to emit twenty five (25) tons per year or ten (10) pounds per hour of sulfur dioxide. Therefore, 326 IAC 7 does not apply to this source.

326 IAC 8 (Volatile Organic Compound Rules)

(a) Methylene Chloride is not a Volatile Organic Compound (VOC). Therefore, 326 IAC 8-2 (Surface Coating Emission Limitations) do not apply to Emission Unit ID EU 1 Graco Glue System.

(b) There are no 326 IAC 8 provisions applicable to solvents used in spot cleaning or wiping. Therefore, 326 IAC 8 does not apply to miscellaneous solvent cleaning usage identified as EU 2. The estimation of potential to emit VOC as stated in the ***Potential to Emit*** Table of this TSD and Appendix A page 6 of 6 is entirely attributed to Emission Unit ID EU 2. Spot cleaning PTE does not exceed 10.0 tons per year, the minimum permitting threshold for VOC emissions if no 326 IAC 8 provisions apply.

326 IAC 22 Stratospheric Ozone Protection

Elliot-Williams utilizes HCFC 141B in their polyurethane foam board manufacturing process. This compound is listed as a Class II Controlled Substance in Appendix B to Subpart A of 40 CFR 82. Additional information on the use of this substance was received on October 15, 2001.

The Indiana state rule incorporates the requirements of 40 CFR 82 Protection of Stratospheric Ozone by reference. The requirements of 40 CFR 82 are broken out in Subparts A through H. Listed below is a discussion of each Subpart as it relates to Elliot-Williams.

(a) Subpart A Production and Consumption Controls. 40 CFR 82.1(b) states that Subpart A is applicable to any person that produces, transforms, destroys, imports or exports a controlled substance or imports or exports a controlled product. Elliot-Williams does not produce, transform, destroy or import or export a controlled substance. Elliot-Williams does not appear to import or export a controlled product as HCFC141B is not a Class I controlled substance. As a result, in appears that the provisions of Subpart A are not applicable.

(b) Subpart B Servicing of Motor Vehicle Air Conditioners. Elliot-Williams does not meet the applicability criteria of Subpart B as found in 40 CFR 82.30(b) which refers to any person performing service on a motor vehicle when this service involves the refrigerant in the motor vehicle air conditioner.

(c) Subpart C Ban on Nonessential Products Containing Class I and Ban on Nonessential Products Containing or Manufactured with Class II Substances. 40 CFR 82.70(c) specifically exempts Class II substances as being banned if they meet the exemption criteria of 40 CFR 82.62(h). Elliot-Williams manufactures a closed-cell rigid polyurethane foam board and therefore is exempted from a ban on this Class II substance's use.

(d) Subpart D Federal Procurement. 40 CFR 82.80 Subpart D is applicable to Federal Agencies, Departments and instrumentalities. Therefore, Subpart D is not applicable to Elliot-Williams.

(e) Subpart E The Labeling of Products Using Ozone-Depleting Substances. Pursuant to 40 CFR 82.102(b), Elliot-Williams may delay the labeling of their product until the year 2015. However, the following language will be incorporated in to the Exemption with regard to future labeling requirements under Subpart E:

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart E, the Permittee shall comply with the standards for labeling of containers of controlled substances or products containing controlled substances.

(f) Subpart F Recycling and Emissions Reduction. 40 CFR 82.150 applies to servicing, maintenance, repair and disposal of motor vehicle air conditioners and appliances. As a result, 40 CFR 82.150 does not apply to Elliot-Williams polyurethane foam board manufacturing process.

(g) Subpart G Significant New Alternatives Policy Program. The object of Subpart G is to identify substitutes for ozone depleting compounds and evaluate the acceptability of those substitutes.

(h) Subpart H Halon Emissions Reduction. This Subpart is applicable to the manufacture, venting and the training of technicians for servicing halon (any of the Class I Group II substances listed in 40 CFR 82 Subpart A, Appendix A) containing equipment. Because Elliot-Williams uses a Class II compound, Subpart H is not applicable.

Conclusion

The construction and operation of this refrigeration systems manufacturing operation under a Standard Industrial Classification (SIC) Code of 3585 Commercial and Industrial Refrigeration

Equipment shall be subject to the conditions of the attached proposed **Exemption 097-14636-00398.**

APPENDIX A

Emission Unit ID EU 1
Graco Glue System

Appendix A: Emissions Calculations
HAPs and Particulate
From Surface Coating Operations

Company Name: **Elliot Williams**
Address City IN Zip: **3500 East 20th Street, Indianapolis, IN 46218**
CP:
Plt ID: **097-14636-00398**
Reviewer: M. Caraher
Date: 9/11/01

Material	Density (Lb/Gal)	Weight % HAP (H20& HAP)	Weight % Water	Weight % HAP	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds HAP per gallon of coating less water	Pounds HAP per gallon of coating	Potential HAP pounds per hour	Potential HAP pounds per day	Potential HAP tons per year	Particulate Potential ton/yr	lb HAP /gal solids	Transfer Efficiency
SX-34943-N 650	10.2	77.00%	0.0%	77.0%	0.0%	28.60%	0.00380	50.000	7.85	7.85	1.49	35.81	6.54	0.00	27.46	100%

METHODOLOGY

Pounds of HAP per Gallon Coating less Water = (Density (lb/gal) * Weight % HAP) / (1-Volume % water)
Pounds of HAP per Gallon Coating = (Density (lb/gal) * Weight % HAP)
Potential HAP Pounds per Hour = Pounds of HAP per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential HAP Pounds per Day = Pounds of HAP per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential HAP Tons per Year = Pounds of HAP per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds HAP per Gallon of Solids = (Density (lbs/gal) * Weight % HAP) / (Volume % solids)

HAP = Methylene Chloride
Transfer Efficiency = 50% per AP-40 Chapter 10 Table 1 for Air Atomization spray painting

Emission Unit ID EU 2
Solvent Use

Appendix A: Emissions Calculations
VOC and HAPs from Solvent Use

Company Name: **Elliot Williams**
Address City IN Zip: **3500 East 20th Street, Indianapolis, IN 46218**
CP:
Plt ID: **097-14636-00398**
Reviewer: M. Caraher
Date: 9/11/01

	max gallons per year	density lbs/gal	VOC content	VOC emissions tons/yr	HAP content	HAP emissions tons/yr
Neutra Flush 1	1200	7.2	92%	3.97	5%	0.22
Naptha	850	6.33	100%	2.69	11%	0.30
Dimethylformamide	250	7.1	100%	0.89	99%	0.88
Dioctyl phtalate	100	8.2	100%	0.41	100%	0.41
Methylene Chloride	100	10.2	0%	0.00	100%	0.51
	0.29			**7.96**		**2.31**

Appendix A: Emission Calculations
Welding

max tons/yr of welding consumables:
80

Company Name: Elliot Williams
Address City IN Zip: 3500 East 20th Street, Indianapolis, IN 46218
CP:
Plt ID: 097-14636-00398
Reviewer: M. Caraher
Date: 9/11/01

Insignificant Activity	PTE		Actual	
	PM tons/yr	PM10 tons/yr	PM tons/yr	PM10 tons/yr
Mechanical Drilling Beams & Plates	*	*	NR	NR
Saw Cutting Beams & Plates	*	*	NR	NR
Flame Cutting Beams & Plates	*	*	NR	NR
Punching Beams & Plates	*	*	NR	NR
Brazing	*	*	NR	NR
Soldering	*	*	NR	NR
Flux Cored Arc Welding using Argon (using 80 tons or less of welding consumables)	*	*	NR	NR
SUM	*	*	*	*

* = source certified on application that all insignificant activities combined are less than 5 lbs PM/PM10 per hour and 25 lbs PM/PM10 per day.

25 lbs PM/day * 365/2000 = 4.6 tons per year

NR = Not Reported

AP-42 emfac Table 12.19-1 for FCAW is, worst case, 57 lbs PM10/1000 lbs of welding consumables:

80 tons/yr * 2000 lbs/ton * 57 lbs PM10/1000 lbs * ton/2000 lbs = 4.56 tons PM10/yr

Polyurethane Foam Blowing

Appendix A: Emission Calculations
Polyurethane Foam Blowing

Company Name: **Elliot Williams**
Address City IN Zip: **3500 East 20th Street, Indianapolis, IN 46218**
CP:
Plt ID: **097-14636-00398**
Reviewer: M. Caraher
Date: 9/11/01

	HCFC 141B tons/yr	MDI tons/yr
Potential emission rates based on max capacity and 8760 hrs are stated as:	3.5	3.60E-04

Natural Gas Space Heating

Appendix A: Emission Calculations
Natural Gas Combustion Only
MM Btu/hr 0.3 - < 10
Space Heating

Company Name: **Elliot Williams**
Address City IN Zip: **3500 East 20th Street, Indianapolis, IN 46218**
CP:
Plt ID: **097-14636-00398**
Reviewer: M. Caraher
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Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
2.0	17.5

	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0	5.3	84.0
Potential Emission in tons/yr	0.1	0.1	0.0	0.9	0.0	0.7

Methodology

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: uncontrolled = 100, Low Nox Burner = 17, Flue gas recirculation = 36

Emission Factors for CO: uncontrolled = 84.0

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-03-006-03

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Source Wide PTE

Appendix A: Emission Calculations
Total Source Wide PTE

Company Name: **Elliot Williams**
Address City IN Zip: **3500 East 20th Street, Indianapolis, IN 46218**
CP:
Plt ID: **097-14636-00398**
Reviewer: M. Caraher
Date: 9/11/01

	PM	PM10	SO2	NOx	VOC	CO	Methylene Chloride	HCFC 141B	MDI	Dimethylformamide	Dioctyl Phtalate	"BTEX"
Graco Glue System	0.0	0.0	0.0	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0
Misc Solvent Use	0.0	0.0	0.0	0.0	8.0	0.0	0.5	0.0	0.0	0.9	0.4	0.3
Welding	4.6	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foam Blowing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	3.60E-04	0.0	0.0	0.0
Nat Gas Space Heating	0.1	0.1	0.0	0.9	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Total PTE	4.7	4.7	0.0	0.9	8.0	0.7	7.0	3.5	3.6E-04	0.9	0.4	0.3